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Endangered Species

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GLEN C. SANDERSON

Endangered Plants and Animals of Oregon

III. Birds


Special Report 278

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Agricultural Experiment Station

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FOREWORD

The publications under this title list and locate plants and animals in Oregon that represent "endangered species"—ones which can be easily destroyed. They are usually found in relatively small areas. Because they are often rare or unusual, they possess unique scientific value. For this reason alone, their preservation is considered beneficial to man's interest. Moreover, they can be easily eliminated or their numbers seriously reduced through man's manipulation of the environment. Habitat essential to survival, for example, is and can be altered through a number of man's activities, including pesticides, toxic materials, or other pollutants in the environment.

Those responsible for planning and carrying out operations which may destroy or modify natural habitat or pollute it with toxic materials need objective information regarding undesirable or unwanted effects of their activities. Also, there is danger of contaminating high-value natural resources such as the water supply of fish hatcheries or natural breeding areas of fishes which reproduce at specific times in limited areas. The publications grouped under this heading provide additional facts not generally known or available regarding the location of endangered species. Through these reports, it is hoped that the public will select alternatives which will insure the continued preservation of our rare plants and animals.

This series of special reports was approved at the June 15, 1965, meeting of the Oregon Interagency Pesticide Council. Oregon State University, through its Agricultural Experiment Station, was committed to provide the leadership needed in

compiling and publishing the reports. Oregon State University is recognized in the Charter of the Oregon Interagency Pesticide Council as being in the position of supplying such "source material." Previous special reports in the *Endangered Plants and Animals of Oregon* series are:

- C. E. Bond, 1966. Endangered plants and animals of Oregon. I. Fishes. Special Report 205, Agricultural Experiment Station, Oregon State University, Corvallis.
- R. M. Storm, 1966. Endangered plants and animals of Oregon. II. Amphibians and Reptiles. Special Report 206, Agricultural Experiment Station, Oregon State University, Corvallis.

Copies of these reports are available upon request from the Department of Fisheries and Wildlife, Oregon State University.

This special report deals with endangered birds and with birds which could conceivably become endangered in the immediate future. Careful consideration of potential authors for this report led to the conclusion that David B. Marshall, a graduate of the Department of Fisheries and Wildlife, Oregon State University, possessed the unique qualifications required, and he was requested to undertake this difficult task. Mr. Marshall is presently an employee of the U. S. Bureau of Sport Fisheries and Wildlife, one of the agencies actively participating in the Oregon Interagency Pesticide Council.

Thomas G. Scott, *Head*
Department of Fisheries and Wildlife

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Endangered Plants and Animals of Oregon

III. Birds

DAVID B. MARSHALL

INTRODUCTION

People show special interest in birds because they are aesthetically attractive and because they are a conspicuous part of the environment. In addition, birds are economically valuable and serve as an important indicator of man's influence on the environment. Some of Oregon's birds need help; the status of others should be closely watched. This report calls attention to birds which appear to have an insecure future in Oregon.

Approximately 465 species and subspecies of birds have been recorded as visitors or residents in Oregon, excluding fossil remains. This report covers the assumed status of 68 of these birds, and their status is summarized in Table 1. Three have been judged endangered or threatened with extinction on a national and international level. Seven additional ones are endangered at the state level. The remaining 58 species and subspecies are grouped into various other categories of special bearing on the subject of endangered species. This report, therefore, deviates from others of this series in that *not all of the listings are presently endangered species*.

Birds are highly migratory and there is little reason for listing all of the bird rarities occurring in Oregon because most are short-time visitors, vagrants, or stragglers which have deviated from normal migration routes. Therefore, except for birds which have significance nationally, this report includes only those species and subspecies which nest in Oregon.

Migrating and wintering habitats are important to a species' welfare; in fact, just as essential as breeding habitat. For example, the continued existence of the black brant (*Branta nigricans*) is dependent not only upon preservation of breeding areas in Alaska but also upon the presence of adequate migrating and wintering habitats in estuarine areas along the coasts of Washington, Oregon, California, and Mexico, which incidentally

are being rapidly destroyed. However, it appeared impractical to list all of the forms which occur as migrants or wintering species. For example, there would be little purpose in considering birds like the snowy owl (*Nyctea scandiaca*) which is abundant in its northern ranges but appears in Oregon only sporadically.

In the listings to follow, entire breeding ranges are considered in order to place Oregon in perspective with the rest of the breeding range of a given species. Some species which are endangered or rare as nesters may be abundant in fall or winter.

The list follows, insofar as practical, the format and definitions contained in the bird sections of the so-called "Red Book" (Bureau of Sport Fisheries and Wildlife, 1968) on rare and endangered wildlife of the United States.

Oregon birds which are included in the above publication and therefore have "national" status are listed first. Some of these are endangered; others are potentially endangered. Not all of them nest in Oregon; some only pass through as migrants.

Species and subspecies which are not nationally endangered or potentially endangered but whose breeding status may be endangered or potentially endangered in Oregon are treated next. In many instances, these birds nest in Oregon at only one or two locations, or the state is on the edge of their breeding range.

Definitions used in this publication are quoted from the "Red Book" with modifications to fit Oregon:

ENDANGERED: An endangered species or subspecies is one whose prospects of survival and reproduction are in immediate jeopardy. Its peril may result from one or many causes—loss of habitat or change in habitat, overexploitation, predation, competition, disease. An endangered species must have help or extinction will probably follow.

RARE: A rare species or subspecies is one that, although not presently threatened with extinction, is in such small numbers throughout its range that it may be endangered if its environment worsens. Close watch of its status is necessary.

PERIPHERAL: A peripheral species or subspecies is one whose occurrence in Oregon is at the edge of its natural range and which is rare or endangered within Oregon, although not in its range as a whole. Special attention may be necessary to assure retention in our state's fauna.

STATUS UNDETERMINED: A status-undetermined species or subspecies is one that has been suggested as possibly endangered, or peripheral, but about which there is not enough information to determine its status. More information is needed.

There is one nationally endangered species, the California condor (*Gymnogyps californianus*) which formerly occurred in Oregon during the early 1800's but is now restricted to southern California. There are no Oregon species which have become extinct nationally since the arrival of settlers, but some species which formerly occurred in the state are now absent.

Throughout the list there is frequent use of common names to denote subspecies. This is unavoidable, despite the omission of common names for trinomials in the fifth edition of the A.O.U. *Check-List* (American Ornithologists' Union, 1957). Full trinomial common names are necessary to adequately identify subspecies for those unacquainted with the scientific names of birds. They follow the "Red Book" where listed. For birds which are not on the national list, a common name denoting species was derived from the fifth edition of the

A.O.U. *Check-List*, preceded by a subspecific name obtained from Jewett et al. (1953) or Grinnell and Miller (1944).

This report does not treat species which have been badly depleted but which have not reached one of the status definitions used herein. If present trends continue, there will be further additions to the list. Outstanding examples of badly depleted species which were still not judged rare are the golden eagle (*Aquila chrysaetos*), the western burrowing owl (*Speotyto cunicularia hypugaea*), Lewis' woodpecker (*Asyndesmus lewis*), and the western bluebird (*Sialia mexicana*).

Not all changes in the status of various birds are attributable to man, nor have all man's changes to the landscape been detrimental to all species. Other changes are not within the scope of present knowledge. Unfortunately, with the possible exception of some information on waterfowl, we are without statistically sound population data upon which to determine what has happened. Only the most obvious changes have come to our attention.

The literature, including this report, shows that more species are nesting in the state than ever before. Losses have seemingly been more than offset by gains in the number of species nesting in Oregon. However, the author has a word of caution on this conclusion. The state is covered far better today than at any time in the past due to an ever-increasing number of professional biologists and amateur ornithologists who send in reports of their findings. Without them, some of the new ornithological findings, including a number of those which follow, would not have been known.

The following table gives the status of birds appearing in the annotated list and page reference numbers for the discussions of the birds listed.

Table 1. STATUS OF BIRDS APPEARING IN THE ANNOTATED LIST

	National status (if any)*	State status*	Page		National status (if any)*	State status*	Page
Holboell's Red-necked Grebe		P	15	American Marbled Murrelet		SU	19
Horned Grebe		P	16	Rhinoceros Auklet		SU	20
Southern Fork-Tailed Petrel		R	13	California Yellow-billed Cuckoo		SU	20
White Pelican		R	13	California Screech Owl		SU	20
California Brown Pelican†	SU	P	9	Flammulated Owl		SU	20
American Common Egret		P	16	California Pygmy Owl		SU	20
Brewster's Snowy Egret		P	16	Northern Spotted Owl		E	13
Western Least Bittern		P	16	Great Gray Owl		R	15
White-faced Ibis		P	16	Dusky Poor-will		SU	20
Trumpeter Swan		E	11	Migratory Allen's Hummingbird		SU	20
Aleutian Canada Goose†	E	E	7	Alaska Northern Three-toed			
Tule White-fronted Goose†	E	E	8	Woodpecker		R	15
Ring-necked Duck		P	16	Eastern Phoebe		P	17
Lesser Scaup		P	17	Black Phoebe		P	17
Barrow's Goldeneye		P	17	Northern Purple Martin		SU	20
Bufflehead		P	17	Nevada Scrub Jay		SU	21
Harlequin Duck		R	14	Nicasio Scrub Jay		SU	21
Swainson's Hawk		R	14	Warner Valley Titmouse		SU	21
Ferruginous Hawk	SU	E	9	Warner Valley Bewick's Wren		SU	21
Northern Bald Eagle		E	11	Western Mockingbird		P	17
American Osprey	SU	R	10	Catbird		P	18
Prairie Falcon	R	R	8	Willow Veery		P	18
American Peregrine Falcon	E	E	8	Western Blue-gray Gnatcatcher		P	18
Western Pigeon Hawk		E	13	Western Water Pipit		P	18
Sierra Blue Grouse		SU	19	Bohemian Waxwing		P	18
Franklin's Spruce Grouse		E	13	California Hutton's Vireo		SU	21
Columbian Sharp-tailed Grouse	SU	E	10	Northern American Redstart		P	18
Greater Sandhill Crane	R	R	8	Bobolink		P	18
Yellow Rail		SU	19	Tricolored Blackbird		P	19
Western Snowy Plover		R	14	Rocky Mountain Pine Grosbeak		SU	21
Upland Plover		SU	19	Wallowa Gray-crowned Rosy		SU	11
Alaskan Short-billed Dowitcher	SU	SU	11	Finch			
Black-necked Stilt		P	17	Black Rosy Finch		SU	21
Franklin's Gull		P	17	Western Grasshopper Sparrow		SU	22
Caspian Tern		R	14	Desert Black-throated Sparrow		SU	22

* Letter symbols are: E—endangered; R—rare; P—peripheral, and SU—status undetermined.

† Not a breeding species in Oregon.

ANNOTATED LIST

Nationally Endangered Oregon Birds

1. ALEUTIAN CANADA GOOSE (*Branta canadensis leucopareia*)

This goose presently breeds in the wild only on Buldir Island in the Aleutian Islands. It migrated to California and presumably still does. The entire population is only about 300. One specimen, taken by a hunter on the Oak Knoll Gun Club east of Corvallis in Linn County was identified as this subspecies by Harold C. Hanson (personal com-

munication, 1968) of the Illinois Natural History Survey. The specimen is in his possession. In Corvallis three geese, probably of this race as judged by size and the presence of large neck rings, landed with John Adair's captive geese on May 2, 1967. One believed to be of this race spent the summer of 1968 there and was seen and photographed by the writer. Unsubstantiated sight records have also come from Sauvies Island. Western Oregon

may be a wintering or migration area for this bird, but a problem in distinguishing this race from others makes it difficult to ascertain its distribution outside the Aleutians.

2. TULE WHITE-FRONTED GOOSE (*Anser albifrons gambelli*)

The breeding range of this goose is unknown. It winters in the Sacramento Valley and Sacramento-San Joaquin Delta of California, Texas, and Louisiana; in migration, it almost certainly passes through Oregon. Some white-fronted geese killed in recent years at Summer Lake Management Area were believed to be of this race (C. E. Kebbe, personal communication, 1968); but data are missing, and specimens were not preserved.

3. AMERICAN PEREGRINE FALCON (*Falco peregrinus anatum*)

This bird is widely distributed throughout most of North America from the treeline south, but in critically low numbers. Gabrielson and Jewett (1940:203) considered it a "comparatively rare

bird in Oregon." They knew of only one nesting pair at the time—in Lake County—but, about the same time, a pair was also nesting on Malheur National Wildlife Refuge (J. C. Scharff, personal communication, 1968). The situation remains much the same today. One nesting pair is known in Deschutes County (J. O. Anderson, personal communication, 1968). Reports of peregrine falcons during migration periods and winter are fairly frequent throughout the state. Many of these no doubt belong to two more northern nesting races, Peale's peregrine falcon (*F. p. pealei*) and the newly described tundra peregrine falcon (*F. p. tundrius*) (White, 1968). Neither of these races is considered endangered. The southerly nesting American peregrine is of course more affected by man. There is increasing evidence that the decline in the American peregrine and its old world counterparts may be caused in part by chemical pesticides. This bird is unfortunately still eagerly sought by falconers. All nesting sites need to be given complete protection from any type of intrusion.

Nationally Rare Oregon Birds

1. PRAIRIE FALCON (*Falco mexicanus*)

This falcon is found from southern British Columbia, southern Alberta, and southeastern Saskatchewan, to southern lower California and southern Mexico. In Oregon, nesting is restricted to the eastern part of the state. Gabrielson and Jewett (1940) describe the prairie falcon as a common permanent resident of eastern Oregon. Although this can hardly be considered true now, sightings of this bird are still frequent for those who travel in eastern Oregon. The "rare" designation in the latest edition of the "Red Book" (Bureau of Sport Fisheries and Wildlife, 1968) thus comes as a surprise. However, the known number of nesting pairs in Oregon is limited. At least 10 active nesting sites in Lake, Klamath, Harney, Malheur, and Sherman counties have been brought to my attention (C. E. Kebbe, E. J. Parker, J. B. Crowell, J. L. O'Donahue, and J. C. Scharff, personal communications, 1968). They were "fairly common" in canyons west of Pilot Rock, Umatilla County, and may still be there (W. E. Griffiee, personal communication, 1968). Nesting sites should be protected by whatever means practical.

2. GREATER SANDHILL CRANE (*Grus canadensis tabida*)

This bird breeds very locally from southern British Columbia east to southern Manitoba and probably in southwestern Ontario south to northeastern California, northern Nevada, Utah, Wyoming, Minnesota, Wisconsin, and Michigan. It winters locally from central California and northern Mexico east to southern Georgia and Florida. In Oregon, it nests in meadows and marshes of Harney and Lake counties and, to a lesser extent, in Klamath, Grant, and Malheur counties. A nest was also reported in 1968 at Devils Lake, Deschutes County (G. G. Merrick, personal communication, 1968). This crane migrates through these same Oregon areas to winter in California, unless some winter with lesser sandhills (*G. c. canadensis*) on Sauvie's Island in Multnomah and Columbia counties.

The national population of greater sandhills is listed at "about 6,000" in the "Red Book" (Bureau of Sport Fisheries and Wildlife, 1968:23), but a more recent estimate based on a mail survey sent to observers throughout the country resulted in an estimate of "about 10,000 to 15,000" (Littlefield,

1968). The latter estimate is considered high by some, and it is the author's opinion that the matter needs additional study. Confusion between this bird and the lesser sandhill on migration and wintering areas makes population estimates difficult.

In Oregon, as in other areas, the greater sandhill has responded well to management, including hunting closures and refuges. Gabrielson and Jewett (1940:229) wrote: "Approximately 100 pairs still nest on the great cattle ranches of the Blitzen Valley and in the areas east of the Steens Mountains, but this is a rapidly disappearing species so far as Oregon is concerned." Today, the situation is entirely different as nearly every marsh, large hay meadow, and even some mountain meadows of Klamath, Lake, Harney, and Malheur counties have nesting sandhills. Malheur National Wildlife Refuge holds the greatest numbers, but Warner Valley, Goose Lake Valley, and Chewaucan Marsh are also major producers. Other areas of use are too numerous to mention. C. D. Littlefield (1968:2) reported, "An estimated 2,000 individuals summer in

southeastern Oregon, about 400 on Malheur National Wildlife Refuge; and J. D. Wendler, game management agent, Lakeview, Lake County, Oregon (personal communication), estimated 1,400 birds in areas on and around Warner Valley, Goose Lake, and Sycan Marsh." Littlefield attributed the remaining 200 to other summering areas such as Catlow Valley in Harney County. Correspondence with Game Agent Wendler accounts for only half as many birds. It is entirely possible that only the 2,000-bird figure includes some duplication because summering crane populations in this area tend to move about. Many are nonbreeders. This bird appears to be well established in population numbers in accordance with the carrying capacity of available habitat in Oregon. Wendler (personal communication, 1968) says "Ranchers of Lake County have little sympathy for sandhills, and I believe they do everything possible to discourage them in farming areas." In the late summer and fall, sandhills move to grain fields, and this is no doubt what Wendler is referring to.

Nationally Status-Undetermined Birds

1. CALIFORNIA BROWN PELICAN (*Pelecanus occidentalis californicus*)

This pelican nests from Anacapa Island and other islands off the southern California coast south to islands off Baja California and the Tres Marias Islands off Nayarit, Mexico. It wanders north along the coast after the breeding season, as far as southern British Columbia. In Oregon, this bird appears regularly in the Netarts-Tillamook Bay area and more southern coastal points from August through November. Recent high Oregon counts include 110 in the Netarts-Tillamook Bay area on August 27, 1967 (J. W. Crowell, personal communication, 1969). This bird suffered alarming nesting failures from egg breakage in 1969 on Anacapa Island and perhaps on other nesting islands. This breakage is commonly associated with high pesticide residues which have been found in the eggs (J. O. Keith, personal communication, 1969). A problem of this magnitude was not heretofore expected to exist with a strictly marine feeder. At the time of this writing, the situation is still under study, but pollution of the ocean from pesticides at a level to cause this disaster adds a new dimension to the pesticide problem. Although placed in the status-undetermined category in the

"Red Book" (Bureau of Sport Fisheries and Wildlife, 1968), the most recent data on this bird from California places it in the rare category.

2. FERRUGINOUS HAWK (*Buteo regalis*)

This hawk is rather widely distributed as a nester from southern Alberta and Manitoba southward through eastern Oregon and Nevada into the southwestern states. Gabrielson and Jewett (1940) list it as a regular summer resident and breeding species in eastern Oregon. This is no longer true. Although by no means a complete count, four or five nests have been reported in recent years. A pair nested successfully in northern Lake County in 1964 and 1965 (A. Baldrige, personal communication, 1968). It was also present in 1968 (W. C. Thackaberry, personal communication, 1968). This may be one of two nests also reported from Lake County by James O. Anderson (personal communication, 1968). Other pairs include one which brought off three young in 1967 in Malheur County near Harper (R. R. Kindschy, personal communication, 1968) and one found by John B. Crowell, nesting near Brothers, Deschutes County, from 1962 through at least 1966 (Rogers 1966, and J. B. Crowell, personal communication, 1968).

Thomas McCamant (personal communication, 1968) accompanied by Mrs. Gaylord Ward, reported three near Baker, which may have represented two nesting pairs, during the summer of 1968, but details are lacking. This scarcity contrasts with 28 nests once reported in Morrow and Umatilla counties alone (Gabrielson and Jewett, 1940). The ferruginous hawk is truly an endangered species insofar as Oregon is concerned.

3. AMERICAN OSPREY (*Pandion haliaetus carolinensis*)

This bird breeds from Alaska across northern Canada south along the west coast into Mexico. According to Gabrielson and Jewett (1940), it occurred along the coast and about such streams as the Rogue, Umpqua, Deschutes, John Day, and Columbia. Unlike other parts of the nation, in Oregon the status of the osprey appears to have changed little. Observers who were contacted from the central and western parts of the state were actually able to account for 56 active nests, assuming that pairs which nested in 1968 also nested in 1969. An additional seven pairs were probably nesting. We frequently receive reports of lone ospreys, which may represent still more breeding pairs. The latter situation is particularly true of the more eastern counties where no actual nests have been reported.

By far the largest number of ospreys reported is for Crane Prairie Reservoir in the Deschutes National Forest where Oregon State Game Commission biologists and Forest Service personnel tallied 26 active nests in both 1966 and 1967 and 45 in 1969. In the same vicinity, pairs believed to be nesting have been noted at Wickiup Reservoir, Crescent Lake, and along the Deschutes River (M. J. Griffith, personal communications, 1968 and 1969). In Klamath County at least two active nests are on Upper Klamath Lake and one each near Pelican Butte and at Gerber Reservoir (J. L. O'Donahue, personal communication, 1968). In southwestern Oregon, active nests were reported as follows: one each, Howard Prairie Reservoir, Hyatt Lake, and Dodge Bridge on the Rogue River near Hellgate, Josephine County (W. A. Neitro and J. H. Hicks, personal communications, 1968). A nest with young was reported by Alan Baldridge between Gold Beach and Agness on June 27, 1964 (Boggs and Boggs, 1964). A pair nested in 1966 along the Willamette River north of Albany (Crowell and Nehls, 1966). Two adults observed at Siltcoos Lake south of Florence on May

14, 1968, were almost certainly nesting (T. Garratt, personal communication, 1968). Pairs have also been reported from Fern Ridge Reservoir, Lebanon, and Deer Island on the Lower Columbia (A. Baldridge, personal communication, 1968).

Like other fish-eating birds, the osprey can readily be affected by secondary poisoning from pesticides. In Oregon, it appears to have escaped this fate which has affected other populations. The United States Forest Service is to be commended for maintaining the nesting snags at Crane Prairie Reservoir. As long as present circumstances exist, the author has judged this bird as rare in Oregon.

4. COLUMBIAN SHARP-TAILED GROUSE (*Pedioecetes phasianellus columbianus*)

This grouse is resident from British Columbia and western Montana to Nevada, Utah, Colorado, and northern New Mexico. It was formerly found over most of eastern Oregon. A remnant population, located southeast of Lookout Mountain near Baker, still remains. Gabrielson and Jewett (1940) reported seeing this bird occasionally in small flocks in the grain-growing areas of the north-central part of the state, apparently in the 1930's. However, its numbers became greatly reduced with the elimination of original grassland habitat through cultivation and overgrazing. Gabrielson and Jewett (1940) considered, however, that grain fields afforded habitat if they were broken and interrupted with canyons and scab rock patches grown to bunchgrass, which was the original vegetation. They report (p. 217), "The original vegetation of the territory provides conditions that permit the species to persist in limited numbers, but continual persecution and shooting, combined with human encroachment on its breeding grounds, have so reduced it in numbers that its future as an Oregon bird is precarious."

One transplant of the prairie sharp-tailed grouse (*P. p. jamesi*) made in the National Grassland Area north of Gray Butte and east of Haystack Reservoir, Jefferson County, was attempted to restore this species to former habitat; approximately 25 remain of the total number transplanted (E. Roberts, personal communication, 1968). It appears that if this bird is to become secure in Oregon, special attention must be given to it, including the provision of proper cover and further reintroductions to suitable habitat. It is hoped that the endemic subspecies can be obtained for future transplants.

5. ALASKAN SHORT-BILLED DOWITCHER (*Limnodromus griseus caurinus*)

This bird nests in southern Alaska and winters in Mexico. It migrates along the coast so it must occur in Oregon but, to the writer's knowledge, no specimens have been taken. Other races of short-billed dowitchers also move through Oregon. The Alaskan short-billed dowitcher does not nest in Oregon; it is included in this report because of its national status.

6. WALLOWA GRAY-CROWNED ROSY FINCH (*Leucosticte tephrocotis wallowa*)

This finch nests only in the Wallowa Mountains of northeastern Oregon. No information is available on current populations. Actual nesting records by Gabrielson and Jewett (1940) include Brown Mountain above Minam Lake and the head of Big Sheep Creek, and points in between.

Oregon Endangered Birds Not on the National List

1. TRUMPETER SWAN (*Cygnus buccinator*)

The trumpeter swan nests in Alaska, Alberta, and the Rocky Mountain area of Montana, Idaho, and Wyoming. It was successfully introduced as a breeding species in the late 1950's and early 1960's to the Lacreek, Ruby Lake, and Malheur national wildlife refuges in North Dakota, Nevada, and Oregon, respectively. Additional introductions are at various stages. In Oregon, it was never a breeding species until the recent introduction insofar as is known. The present population at Malheur is approximately 50, with about 5 pairs nesting each year. Trumpeter swans were found in winter on the Lower Columbia River by several early explorers and inhabitants (Gabrielson and Jewett, 1940). They may represent individuals which nested in Alaska. Convincing reports from local residents that trumpeter swans still winter among the large flocks of whistling swans in the marshy islands near the mouth of the Columbia River should be more fully explored, particularly because the habitat there will become industrialized and destroyed if the present trend continues.

2. NORTHERN BALD EAGLE (*Haliaeetus leucocephalus alascanus*)

This bird nests from Alaska and northern Quebec south to Oregon and the Great Lakes. In Oregon, it tends to nest in timbered edges of mountain lakes, major rivers, and the coast.

There is probably more interest in the bald eagle than in any other species listed in this report. Were it not for substantial populations in Alaska, the northern bald eagle would surely be an endangered species nationally as is the case with its southern counterpart, the southern bald eagle (*H. l. leucocephalus*). From Gabrielson and Jewett

(1940), one obtains the distinct impression that a big decline in bald eagle nesting in Oregon occurred between the late 1800's and the 1930's. They wrote of the latter period (p. 196): "We find that it has become rather an uncommon bird in Oregon, except along the coast where a number of pairs still breed. It also occurs fairly regularly along the Columbia River and in the Klamath Lake country. Aside from these areas, our records show recent reports of scattered individuals from the lakes of the Wallowa Mountains, the Deschutes River and lakes about its headwaters, Harney Valley, Lake County, and the headwaters of the Umpqua River."

The situation as we know it today does not indicate there has been any great change in distribution from that described above, despite the fact that man has persecuted this bird in almost every possible way. Bald eagles still nest in all the areas Gabrielson and Jewett (1940) described, except possibly Harney Valley and the lakes of the Wallowa Mountains. We can account for more nests now in the central Cascades than on the coast, but there is insufficient evidence upon which to base any conclusions on whether the number of nesting pairs has declined.

It was hoped that at least a minimum figure on the number of active nesting pairs in Oregon could be obtained, but these plans had to be abandoned. Bald eagle pairs do not always use the same nest each year and commonly alternate between two nests within the same territory. They or their offspring may even return to a nest which has been abandoned for four or five years.

Reports of active bald eagle nests and possible nesting pairs have come in from 11 individuals. These reports represent different years of activity

at given nest sites. The presence of a pair in seemingly good nesting habitat during the breeding season would also strongly indicate nesting, but these situations remain uncertain as long as actual nests are not discovered. This combination of circumstances makes it impossible to determine the number of nesting pairs in the state for any one year. Obviously, to obtain even a good minimum population figure, it would be necessary to complete one survey during one season.

The tabulation in the next column lists nest sites and possible nests known for the past 4 or 5 years.

The bald eagle is susceptible to numerous man-made disturbances, including activity in the vicinity of nests, the actual cutting of nest trees or surrounding protective timber, malicious shooting, and poisoning from pesticides obtained through the food chain. There may also be casualties from electrocutions along power lines such as frequently occur with the more common golden eagle. Protective measures against electrocution have already been established on some lines. This includes broader spacing of wires and the installation of stranded cable atop poles and towers which discourages large birds from perching (M. G. Poland, Bonneville Power Administration, personal communication, 1966). Through the efforts of many conservationists, the public is developing an appreciation of eagles. The shooting of a bald eagle is being considered by many as an act of vandalism. Timber producers are becoming more aware of the need to protect bald eagle nesting sites. Publicity on this bird by J. O. Anderson, the Georgia Pacific Corporation, Weyerhaeuser Company, and others is encouraging. M. J. Griffith, U. S. Forest Service, wrote to the author (1968) as follows: "At this time the Deschutes National Forest has imposed restrictions to protect all eagle nests, both golden and bald eagles, from the impact of timber sales, road construction, recreation campground planning, timber stand thinning, etc., by setting up a buffer zone around all eagle nests and requiring that there be no land management activities during the nesting season from March through August."

As an addendum to this policy, tall snags and snag-topped trees in the vicinity of feeding and nesting areas should be saved. These are used as perching sites and may be an essential part of the habitat.

A factor continuing to work against the bald eagle is the sheer mass of people who are coming into increasing contact with nesting sites. Human

activity around eagle nests can prevent normal nesting behavior and increase opportunities for vandalism in the form of shooting. Unfortunately, however, bald eagles sometimes voluntarily locate nests near human habitation. This situation is to be distinguished from those where man suddenly moves in on the eagles.

NUMBERS AND LOCATIONS OF
KNOWN AND POSSIBLE BALD EAGLE NESTING SITES

Central Cascades and central Oregon mountains—at least 16 sites

Fish Lake, Linn County
East Lake, Deschutes County
Paulina Lake, Deschutes County
Deschutes River, Deschutes County (near Sun River development)
Lake Basin (Elk to Crescent Lakes, including Crane Prairie Reservoir, Wickiup Reservoir, Devils Lake, etc.)—about 10 sites
Suttle Lake, Jefferson County
Thompson Reservoir, Lake County
(M. J. Griffith, J. Knox, T. Garratt, J. O. Anderson, personal communications, 1968)

Northern Cascades—two sites

Columbia River (below Hood River)
Six or seven miles above mouth of White River
(J. O. Anderson, personal communication, 1968)

Lower Columbia River—at least six sites

Eight miles below Rainier
Clifton
Tenasillahe Island
Svenson
Astoria
Young's Bay below Astoria
(T. Garratt, A. Baldrige, J. O. Anderson, personal communications and author's observations, 1968)

Coastal strip—four known sites

Newport
Tillamook Bay
Depoe Bay
North Bend
(J. O. Anderson, A. Baldrige, C. E. Kebbe, personal communications, 1968)

Jackson County area—two possible nests

Howard Prairie Lake
Willow Lake
(J. H. Hicks, personal communication, 1968)

Klamath area—11 sites

Lake of the Woods
Upper Klamath Lake—about nine sites
Chiloquin (Williamson River)
(J. L. O'Donahue, M. J. Wotton, A. Baldrige, J. H. Hicks, personal communications, 1968)

Blue and Wallowa mountains and Snake River areas

No active nest known; approximately 10 pairs during nesting season on the Snake River, lower 10 miles of the Wenaha River and Grande Ronde River, between Troy and Rondowa
(V. L. Coggins and R. M. West, personal communications, 1968)

The bald eagle also occurs in Oregon as a migrant and winter resident. Substantial numbers can be seen in the Klamath region and other areas in winter, but these may not necessarily represent our endangered breeding population. This bird has been placed in the endangered category on the basis of the small number of breeding pairs, combined with the threats described above and the knowledge of the declining productivity of eagles in many eastern states.

3. WESTERN PIGEON HAWK (*Falco columbarius bendirei*)

This hawk breeds from Alaska across to Saskatchewan and into California. In Oregon, it is restricted largely to the eastern part of the state. Gabrielson and Jewett (1940) list it as a very rare breeding bird. No recent breeding records are known for Oregon.

4. FRANKLIN'S SPRUCE GROUSE (*Canachites canadensis franklinii*)

This subspecies is resident from Alaska south into northeastern Oregon. It was described by Ga-

brielson and Jewett (1940) as rare and local in Wallowa County and northern Baker County. This statement still stands according to Oregon State Game Commission personnel from that area. Commission files contain records of four broods from 1961 through 1967 (V. L. Coggins, personal communication, 1968). Several flocks of 8 to 12 were seen near Stanley Guard Station the last week of October 1967 by William A. Thackaberry (personnel communication, 1968).

5. NORTHERN SPOTTED OWL (*Strix occidentalis caurina*)

The northern spotted owl is resident from southwestern British Columbia south to the San Francisco Bay area, in the Cascades, and in the coast ranges. In Oregon, it was considered by Gabrielson and Jewett (1940) to be a permanent resident west of the Cascades. They list one nesting record near Trail, Jackson County, in June 1925. Occasional sight records and specimens have come to our attention in recent years but no nests or young. This bird is not readily detected, and this undoubtedly accounts in part for its presumed endangered status.

Oregon Rare Birds Not on the National List

1. SOUTHERN FORK-TAILED PETREL (*Oceanodroma furcata plumbea*)

This bird nests from Alaska south to Humboldt County, California, but in Oregon it is known as a breeder only from Three Arch Rocks National Wildlife Refuge (Gabrielson and Jewett, 1940) and Hunters Island, Curry County, (M. R. Brown and W. English, unpublished reports to Regional Director, Bureau of Sport Fisheries and Wildlife, 1966). It probably breeds on other coastal rocks which have not been visited. No population data are available for Three Arch Rocks, although it is apparent that numbers are small. At Hunters Island, one pair was found on March 18, 1966. Protective measures are required to keep the Oregon coastal islands free from human disturbance because this is a burrow-nesting species and the burrows are easily trampled. Fortunately, the most important offshore islands from an ornithological standpoint, including Hunters Island, were recently added to the Oregon Islands National Wildlife Refuge.

2. WHITE PELICAN (*Pelecanus erythrorhynchos*)

The white pelican is a common summer visitor throughout shallow water areas in Klamath, Lake, and Harney counties, but as a nesting species it is persistent only in Warner Valley on Crump Lake and on the Upper Klamath National Wildlife Refuge. Occasionally it nests on islands in Harney and Malheur lakes on the Malheur National Wildlife Refuge. Elsewhere, white pelicans nest in California, Nevada, Utah, the Dakotas, Montana, British Columbia, Manitoba, and Alberta. Information taken from files of the Bureau of Sport Fisheries and Wildlife shows that Crump Lake produces up to 500 young during favorable years, while in other years nesting is unsuccessful due to mammalian predation or disturbance caused by low water. The Upper Klamath Lake colony produces about 200 young per year. On Malheur and Harney lakes, nesting is sporadic and limited to the production of less than 100 young. Nesting habitat consists of sizable islands in the vicinity of shallow marshes having fish. Islands must be free of mammalian

predators and human disturbance. The marshes of central and southeastern Oregon, particularly those in the Klamath Basin and at Malheur, contain an abundance of fish which attract sizable numbers of pelicans.

This species could be enticed to nest in more stable numbers in Oregon if artificial islands were constructed on Malheur Lake and possibly on other water areas. These birds often attempt to nest at Malheur Lake but usually fail because of lowering water levels which join the islands to the mainland, allowing access by mammalian predators. The colony in Crump Lake should be given protection and an adequate water supply when possible if this bird is to continue nesting there. The nesting island is small and subject to considerable erosion from wave action and cannot be expected to remain without erosion protection.

3. HARLEQUIN DUCK (*Histrionicus histrionicus*)

The Harlequin duck nests from Alaska and southeast Asia southward into Colorado and central California. In Oregon, it was reported by Gabrielson and Jewett (1940) to nest along swift mountain streams in the Wallowas and Cascades. They listed only three breeding records—two from the Wallowas and one from the Zigzag River in Mt. Hood National Forest. All three were between 1925 and 1931. On August 7, 1942, Fred G. Evenden (personal communication, 1968) observed a pair with four young at Big Lake near Santiam Pass, Linn County. These ducks also regularly nest in the upper reaches of the Sandy River, Clackamas County (N. C. Leupold and H. B. Nehls, personal communications, 1968). Jay S. Gashwiler (personal communication, 1968) says these ducks occur during nesting season on Blue River, a tributary of the McKenzie River. This general scarcity of observations indicates that the breeding population of this species in Oregon is small. No new data have come from the Wallowas. These ducks occur more regularly as winter residents off the Oregon coast.

4. SWAINSON'S HAWK (*Buteo swainsoni*)

This hawk breeds from Alaska south to Mexico. Gabrielson and Jewett (1940) list it as a common summer resident in all counties east of the Cascades. This is no longer true. It is declining steadily and, if the present trend continues, it will reach the endangered class. On the Malheur National Wildlife Refuge and vicinity, J. C. Scharff reports, "Maybe 1 pair nesting where 40 plus were nesting 25 years ago." The bird is greatly reduced in the Klamath region (J. L. O'Donahue, personal

communication, 1968). In Deschutes County, Swainson's hawks may still breed in fair numbers, judging from observations there in 1963-68 (A. Baldrige, personal communication, 1968). On August 3, 1966, H. B. Nehls (personal communication, 1968) saw two immatures barely able to fly near Haystack Reservoir, Jefferson County. Mrs. G. Ward observed one to two pairs nesting in recent years near Baker (Rogers 1958, 1959, 1964, and 1967, and Mrs. G. Ward, personal communication, 1968). Observations of singles during the nesting season indicate that one or two additional pairs may be nesting in the Baker area. These accounts are far from complete, but the obvious decline in populations is cause for concern. "Pot-shooters" may be partially to blame, but there are probably deeper biological or chemical causes which appear to be affecting many raptorial birds throughout the world.

5. WESTERN SNOWY PLOVER (*Charadrius alexandrinus nivosus*)

This bird nests along the coast from southern Washington south to lower California and inland in alkaline basins of southeastern Oregon, Nevada, California, and the southwestern states. In Oregon, it is sporadically found at all seasons but in very low numbers on ocean spits having open stretches of sand. It is also found in summer on the Summer Lake Waterfowl Management Area and at Harney Lake on the Malheur National Wildlife Refuge. It is not abundant anywhere; scattered pairs only—the entire eastern Oregon breeding population may number less than 50 pairs. Recreational pressures along ocean spits and planting of vegetation to stabilize the sand could adversely affect this bird. At Harney Lake, this species disappears some years when no water is present in the lake. The continued existence of Harney Lake as a lake is probably necessary to maintain this bird on the Malheur National Wildlife Refuge. It might possibly nest on the east side of Malheur Lake where stretches of alkaline flats and water are present during favorable water years. Coastal spits used include Sand Lake, Tillamook County, Yaquina Bay, Lincoln County, the Columbia River mouth in Clatsop County.

6. CASPIAN TERN (*Hydroprogne caspia*)

The Caspian tern nests in widely scattered locations over much of the world. Gabrielson and Jewett (1940) report it to be a summer resident and nester in Klamath, Lake, and Harney counties. The author is unaware of nesting colonies in

Klamath County. In Lake County, this species nests sparingly at Crump Lake where nine nests were present in 1966 (W. D. Carter, unpublished government memorandum, 1968). At Malheur, nesting occurs when suitable sites are created by proper water conditions. In other years, it does not nest there but occurs during the summer season in a nonbreeding status. This tern was reported in 1958 as nesting on Larson Island, five miles south of the mouth of Weiser River on the Snake River, Malheur County (E. M. Brooks, unpublished government memorandum, 1968). This area is a part of the Deer Flat National Wildlife Refuge. Caspian terns are more frequently noted in migration than as nesters in Oregon.

7. GREAT GRAY OWL (*Strix nebulosa nebulosa*)

This owl is resident from central Alaska and northern Canada south into the central Sierra Nevadas in California and northern Idaho. In Oregon, it is a rare permanent resident, largely in the Cascades and other mountain ranges where lodgepole pine (*Pinus contorta*) adjoins meadows. A number of observers have reported these owls from the Fort Klamath-Crater Lake-Diamond Lake-Chiloquin area where nests have been observed and specimens taken. Reports also have come from eastern Jackson County, but no nests have been found (J. H. Hicks, personal communication, 1968). V. L. Coggins (personal communication, 1968) reported one near Thomason Meadows Guard Station, northern Wallowa County, in July 1965. Several instances have been reported where these birds have been shot by the uninformed and curious. Despite persecution, this large owl may be as numerous in Oregon now as it was 50 years ago.

8. ALASKA NORTHERN THREE-TOED WOODPECKER (*Picoides tridactylus fasciatus*)

This woodpecker is found in Alaska and western portions of Canada south to northern Idaho and southern Oregon in the mountains. In Oregon, it is a rare permanent resident of the higher parts of the Wallowa Mountains and the Cascades. Several early breeding records are listed in Gabrielson and Jewett (1940). Three specimens and two observations, but no breeding records, are reported by Farner (1952:67) at Crater Lake National Park. Unpublished material includes a nest with young found by F. G. Evenden (personal communication, 1968) at Big Lake near Santiam Pass, Linn County, on August 7, 1942. Mr. and Mrs. G. F. Staender (personal communication, 1968) observed a pair feeding young in a lodgepole pine near McKenzie Pass on July 1, 1962. Records of individuals or pairs not seen with nests include observations by the writer and W. H. Telfer at Olallie Lake, Clackamas County, July 21, 1941; by F. G. Evenden (personal communication, 1968) at Santiam and Jorn lakes in early August 1942, and at Marion Lake on August 7, 1946, all Linn County; by A. Baldrige (personal communication, 1968) at Wickiup Reservoir, Deschutes County, on June 8, 1964; and by E. Parker (personal communication, 1968) near Charlton Lake in the Deschutes National Forest. This bird has obviously never been abundant in Oregon. It is associated with lodgepole pine forests as is its more common relative, the black-backed three-toed woodpecker (*Picoides arcticus*).

Oregon Peripheral Birds Not on the National List

1. HOLBOELL'S RED-NECKED GREBE (*Podiceps grisegena holbollii*)

This grebe is widely distributed as a nesting bird across the more northern parts of North America and northeastern Asia. It was first found nesting in Oregon in 1952 at Rocky Point on Upper Klamath Lake on Upper Klamath National Wildlife Refuge (Kebbe, 1958). Today this bird is still known as an Oregon nester from the same location. In June 1964, P. A. DuMont (personal communication, 1968) and family watched a nesting pair on Klamath Forest National Wildlife Refuge. There is

also an isolated nesting record by R. Maben and J. H. Hicks who found a pair with two young at Howard Lake 20 miles east of Ashland on June 23, 1965 (Baldrige and Crowell, 1965). Unpublished refuge narrative reports show approximately five nesting pairs at Upper Klamath during the last few years. Apparently there has been little change in population numbers here for the past 10 years. There is no reason to believe that the status of this subspecies as a nesting bird in Oregon will change as long as suitable habitat exists in the Rocky Point area of Upper Klamath Lake and recreational pres-

tures do not become so great that human disturbance goes beyond tolerable limits. This bird is widely recorded in Oregon as a migrant.

2. HORNED GREBE (*Podiceps auritus*)

The horned grebe breeds across North America from the Arctic south to northern United States. It is known as a nesting species in Oregon only from the Malheur National Wildlife Refuge where it was first found as a breeder in 1958 (Marshall, 1959; Kridler and Marshall, 1962). The number of breeding pairs on the Malheur National Wildlife Refuge the past few years has been approximately 10 to 25 pairs. This extension southward of the horned grebe's breeding range was unexpected.

3. AMERICAN COMMON EGRET (*Casmerodius albus egretta*)

This bird nests at scattered locations throughout central and southern United States south into South America. In Oregon, it nests on Malheur Lake on the Malheur National Wildlife Refuge, at Crump Lake in Warner Valley, and on Upper Klamath Lake. From 1942 or earlier, to the late 1950's, and again in 1969, it nested south of Burns in a willow grove in Harney Valley in the vicinity of Wright's Point, a short distance west of State Highway 205. In the past 10 years, the largest colony in the state, in Malheur Lake, has ranged from 0 to 600 nesting pairs. Malheur Lake usually has several colonies. The Warner Valley colony produced 50 young in 1966 and about 120 in 1967 (J. D. Wendler, personal communication, 1968). The present status of a colony northeast of Paisley, Lake County, is unknown (W. E. Griffie, personal communication, 1968). Egrets are highly susceptible to poisoning from pesticides, as demonstrated by large losses in the Klamath Basin in 1963. Protective measures should include keeping nesting colonies free of disturbance and preventing contamination of the food supply which runs heavily to fish and sometimes mice. Destruction of forage fish populations can be detrimental to this species. Individuals have wandered with increasing frequency to western Oregon in late summer with a few even wintering there.

4. BREWSTER'S SNOWY EGRET (*Leucophoyx thula brewsteri*)

This egret breeds in Nevada, California, the southwestern states, and on the coast of Mexico. It nested in Oregon nearly 100 years ago on the Lower Silvies River just north of Malheur Lake (Gabrielson and Jewett, 1940). It became reestab-

lished as a nesting species in Oregon in the 1950's with the discovery of colonies in Malheur Lake (Marshall, 1959). Small numbers nest with other colonial nesters on the island in Crump Lake. Malheur Lake is the most secure site because it is a part of the Malheur National Wildlife Refuge. The nesting population here in the past 10 years has ranged from none, when the lake became nearly dry in the early 1960's, to 200 pairs during more favorable years. Crump Lake produced 103 young in 1966 (W. D. Carter, unpublished government memorandum, 1968) and about 200 in 1967 (J. D. Wendler, personal communication, 1968). Protection of the Crump Lake colony and continued maintenance of habitat in Malheur Lake appear necessary to keep this bird as a breeding species in these areas.

5. WESTERN LEAST BITTERN (*Ixobrychus exilis hesperis*)

This bird nests from southern Oregon to central Baja California. In Oregon, it is found at Malheur Lake and possibly in the Klamath Basin. One nesting record in the past 50 years has come to our attention. R. C. Erickson (personal communication, 1968) photographed an adult with eggs at Malheur Lake in 1942. At least five young were raised. The writer, stationed on Malheur National Wildlife Refuge for five years, saw this highly secretive species only four or five times.

6. WHITE-FACED IBIS (*Plegadis chihi*)

This species nests from Oregon, Idaho, and Utah through several southern states into Mexico and South America. In Oregon, it nests only on Malheur Lake where numbers of nesters have probably not exceeded 15 pairs per year in the past 20 years. Protective measures required include the maintenance of Malheur Lake habitat in its present condition. Like the egrets and herons with which it nests, this species requires solitude and freedom from disturbance for nesting which is carried out in heavy marsh vegetation.

7. RING-NECKED DUCK (*Aythya collaris*)

The ring-necked duck breeds rather widely across Canada, some of the northern states, and into Arizona and Colorado. In Oregon, there were no recent nesting records until 1963 when this duck was found nesting on Trillium Lake, three miles south of Government Camp in the Mt. Hood National Forest. A year later, it was found nesting on Malheur National Wildlife Refuge (Marshall and Duebbert, 1965). Since that time, it has bred every

year on Trillium Lake and should be looked for on other lakes in the Cascades. Surprisingly, Trillium Lake receives heavy use by fishermen and recreationists; yet this bird has become established there.

8. LESSER SCAUP (*Aythya affinis*)

This bird is widely distributed as a breeding species across Canada and many of the northern states. In Oregon, it has not been known as a breeding species until recent years. Bureau of Sport Fisheries and Wildlife files show that it nests regularly on Malheur Lake and Upper Klamath Lake; probably not over 100 breeding pairs are at Malheur.

9. BARROW'S GOLDENEYE (*Bucephala islandica*)

This species is widely distributed as a breeding bird across Canada and some of the northern states. In Oregon, it breeds sparingly on high Cascades lakes in the central part of the state. Broods have also been seen on East and Paulina lakes (E. J. Parker and P. J. Bonn, personal communications, 1968). Population numbers are unknown, but they may not exceed 500 breeding pairs. The effect of heavy recreational use of the high Cascades lakes on this species is not known.

10. BUFFLEHEAD (*Bucephala albeola*)

This bufflehead is widely distributed as a breeding species in Alaska and Canada. In Oregon, it was not known as a breeding species until recent years. It was first found nesting by Evenden (1947). It has been reported since by a number of individuals as nesting in high Cascades lakes of central Oregon. W. L. Griffie (personal communication, 1968) put up several nest boxes in the Twin Lake area, Deschutes National Forest. A friend reported that they were used. Population numbers are unknown, but the number of nesting pairs may not exceed 100. Again, the effect of recreational use on this species is unknown.

11. BLACK-NECKED STILT (*Himantopus mexicanus*)

This bird nests from southern Oregon, Utah, Colorado, Louisiana, and Florida southward into South America. Up to 50 pairs nest on the Malheur National Wildlife Refuge and 20 pairs on the Summer Lake Waterfowl Management Area. Possibly as many as 10 pairs nest south of Klamath Falls at the head of a sewage lagoon (C. E. Kebbe, personal communication, 1968). In the west, this bird requires shallow, alkaline marshes with sparse

vegetation. Such habitat exists at only a few localities in Oregon.

12. FRANKLIN'S GULL (*Larus pipixcan*)

Franklin's gull nests at widely scattered localities from southeastern Alberta east to southwestern Manitoba and south through western Minnesota, northwestern Iowa, and the Dakotas to the Bear River Migratory Bird Refuge, Utah, and the Malheur National Wildlife Refuge, Oregon. It was first found in Oregon in 1942 when R. C. Erickson located a nesting colony of 60 to 80 pairs in Malheur Lake (Jewett, 1949, and R. C. Erickson, personal communication, 1968). This is the only site in the state where this bird nests. About 100 pairs were estimated to be present in 1966.

13. EASTERN PHOEBE (*Sayornis phoebe*)

This species nests throughout the eastern two-thirds of North America from southern Canada south to most southern states. Normal nesting range in the west has been to northeastern British Columbia east to South Dakota and south through eastern Colorado and New Mexico. Thus, the reports of J. H. Hicks, et al. (Crowell and Nehls, 1966 and 1967) from the Rogue River and Ashland areas are surprising. Although Hicks reports that they migrate through the Rogue River Valley each year, no nests were seen until July 31, 1967, when one was found at Pilot Rock south of Ashland by Hicks and Otis Swisher (J. H. Hicks, personal communication, 1968). It is hoped that a specimen or photograph can be taken to make the status of this bird as an Oregon species acceptable to all.

14. BLACK PHOEBE (*Sayornis nigricans semiatra*)

The black phoebe is resident from California, southern Nevada, southwestern Utah, central Arizona, and Texas south into Mexico. In Oregon, territorial pairs were found near Ruch on Applegate River, Jackson County, by J. H. Hicks and others from May to July 1963 (Boggs and Boggs, 1963). Hicks, et al., found nestlings at same location in 1964 and 1965 (Boggs and Boggs, 1964; Baldrige and Crowell, 1965). Rev. T. McCamant (personal communication, 1968) reports he first found these birds nesting in 1959 under the Forest Creek bridge near Ruch. Nesting in the Medford area occurred in 1968 (Crowell and Nehls, 1968).

15. WESTERN MOCKINGBIRD (*Mimus polyglottos leucopterus*)

This species breeds throughout much of the western United States from central western Cali-

fornia, northern Utah, southeastern Wyoming southward. The fifth edition of the A.O.U. *Check-List* (American Ornithologists' Union, 1957) lists the mockingbird as a breeding species from Steens Mountain. Gabrielson and Jewett (1940) conclude that it must be a permanent resident in small numbers in the Steens Mountain; however, the writer has not come across any actual breeding records. Sight records from the Steens Mountain area have been reported by J. C. Scharff and others in recent years. Individuals are occasionally seen throughout the state as wanderers.

16. CATBIRD (*Dumetella carolinensis*)

The catbird breeds across the greater part of Canada and the United States. In Oregon, there are infrequent records of catbirds throughout Wallowa County south to Malheur and Harney counties. Breeding was recorded in 1942 on the Malheur National Wildlife Refuge by C. C. Sooter (1943) and by W. Batterson in about 1940 near Baker (C. E. Kebbe, personal communication, 1968). Mrs. G. Ward (personal communication, 1968) has sight records for Baker of adults during nesting season and of an adult feeding two young on July 23, 1959.

17. WILLOW VEERY (*Hylocichla fuscescens salicicola*)

The willow veery breeds across southwestern Canada down through the Rocky Mountains and parts of Idaho, Nevada, and Arizona; it also extends into Minnesota, Illinois, and Indiana. In Oregon, it has been taken near Burns, Enterprise, and Hart Mountain during nesting season (Gabrielson and Jewett, 1940). It was seen and heard near Rogue River, Jackson County, in June 1964 (Boggs and Boggs, 1964). However, there were apparently no actual nesting records until June 21, 1959, when Mrs. G. Ward observed a nest with eggs at Baker. She has sight records of singing adults from May 22 through July 21 for the same area (Mrs. G. Ward, personal communication, 1968). J. G. Strauch observed a nest with young on July 9, 1965, at Baker; he reported adults 25 miles east of Prineville along Ochoco Creek (Rogers, 1965).

18. WESTERN BLUE-GRAY GNATCATCHER (*Poliophtila caerulea amoenissima*)

This species breeds from southwestern Oregon into the northern Sacramento Valley, central Nevada, and southern Utah and Colorado south into northern Mexico. This bird has only recently extended its range into Jackson County and, to the

writer's knowledge, the only breeding records are nests and young found by J. H. Hicks in the Ashland-Medford area from 1961 through 1968 (Boggs and Boggs, 1961, 1962, 1963, 1964; Baldrige and Crowell 1965; Crowell and Nehls, 1966, 1967, 1968; and J. H. Hicks, personal communication, 1968). Rev. T. McCamant saw this species near Roxy Ann Butte out of Medford as early as 1957. On May 30, 1968, J. H. Hicks and party found 12 gnatcatchers and 2 nests in the same area (T. McCamant, personal communication, 1968).

19. WESTERN WATER PIPIT (*Anthus spinoletta pacificus*)

The western water pipit breeds from Alaska through British Columbia into the Wallowa Mountains of Oregon where it was found nesting in July 1923 by Gabrielson and Jewett (1940). They suggested that this bird may breed in the high Cascades or on Steens Mountain, but no actual nesting has been found.

20. BOHEMIAN WAXWING (*Bombycilla garrula pallidiceps*)

This bird nests from Alaska and northwestern Canada south to central Washington, northern Idaho, and northwestern Montana. In Oregon, there is one breeding record at Gearhart, Clatsop County (Griffie, 1960). This waxwing normally occurs in Oregon as a sporadic migrant.

21. NORTHERN AMERICAN REDSTART (*Setophaga ruticilla tricolora*)

This species breeds over a great part of North America, from southeastern Alaska across Canada and south into Colorado. In Oregon, it is a summer resident of the Blue Mountains area. Nesting in small numbers was reported by Mrs. G. Ward from the Baker area in 1958 (Rogers, 1958). She has since reported two pairs on June 5, 1958, and a male feeding young on July 4, 1958. Adults were seen in 1959 and 1960. The area of use was subsequently disturbed by a land development (Mrs. G. Ward, personal communication, 1968).

22. BOBOLINK (*Dolichonyx oryzivorus*)

The bobolink breeds across much of southern Canada and a great part of the United States. In Oregon, according to Gabrielson and Jewett (1940), it is a comparatively rare nester in valleys about the base of the Blue Mountains and southward into Malheur and Harney counties. C. E. Kebbe (personal communication, 1968) saw about 10 in the breeding season in a meadow 5 miles north of

Baker. In the same area, Mrs. G. Ward (personal communication, 1968) observed singing males during May and June in 1961, 1962, and 1963. W. R. Humphreys (personal communication, 1968) saw a pair in the same vicinity on May 30, 1968. V. L. Coggins (personal communication, 1968) observed three or four near Enterprise in July 1967. The author observed several pairs on the Malheur National Wildlife Refuge from 1956 through 1960, and R. C. Erickson (personal communication, 1968) estimates the P-Ranch and Sod House Ranch sections of the refuge had at least 25 pairs per year in the early 1950's. The writer has observed bobolinks near Unity, Baker County, on June 10, 1946, and at Wildhorse Creek on the east side of Steens

Mountain in 1956. The status of the bobolink in Oregon appears to have changed little since the 1930's.

23. TRICOLORED BLACKBIRD (*Agelaius tricolor*)

This blackbird breeds from southern Oregon on both sides of the Cascades south through California to northwestern Baja California. In Oregon, there are several colonies in the Klamath Basin and Jackson County area. Richardson (1961), Baldridge and Crowell (1965), and Boggs and Boggs (1963) report nesting colonies at various sites in Jackson County with individual colonies ranging up to several hundred birds. Large colonies continue to exist in Jackson County today (J. H. Hicks, personal communication, 1968).

Oregon Status-Undetermined Birds Not on the National List

1. SIERRA BLUE GROUSE (*Dendragapus obscurus sierrae*)

This bird is found from central Washington into California and Nevada. In Oregon, it is found in the extreme south-central part of the state. Status or population numbers are unknown. This subspecies should not be confused with other races of the blue grouse found in Oregon.

2. YELLOW RAIL (*Coturnicops noveboracensis noveboracensis*)

The yellow rail has been recorded locally from Mackenzie, Manitoba, Ontario, Quebec, New Brunswick, and Maine south to California, Arizona, the southeastern states, and into Mexico. The nest photographed at Aspen Lake, Klamath County, on May 23, 1926, constitutes the only breeding record for Oregon (Griffie, 1944). This appears to have been a rather isolated case, but the possibility remains that this species may still nest in Oregon.

3. UPLAND PLOVER (*Bartramia longicauda*)

The upland plover breeds from Alaska through much of eastern Canada and the eastern states into Texas as well as southward into Oregon where, according to Gabrielson and Jewett (1940), it is a very rare summer resident in a few mountain valleys of eastern Oregon. There are early-day records from Fort Klamath and Harney Valley, along with records in the 1930's of birds taken in Crook, Umatilla, and Grant counties. Gabrielson and Jewett

(1940) reported it to be a rare summer resident in the vicinity of Ukiah, Umatilla County, and Bear and Logan valleys, Grant County. The author is not aware of any evidence of this species nesting in Oregon since the 1930's. He checked the Ukiah area in early June 1968, and Logan Valley in early June 1969, without finding a trace of this bird which may no longer nest in Oregon. However, Bear and Logan valleys should be checked thoroughly during the nesting season. J. G. Olson and J. B. Crowell observed a pair in the sagebrush between the Sod House School and State Highway 205, Harney County, on May 31, 1964 (J. B. Crowell, personal communication, 1968). This is one of two recent records. Upland plovers are conspicuous during nesting season, and the site mentioned above is traveled by qualified observers as much as any site in the state. If this pair had been more than passing through, surely others would have seen it. Another single bird was reported (Rogers, 1968) without details or substantiating data from Silvies, Grant County, on June 26, 1968, by Terry Wahl.

4. AMERICAN MARBLED MURRELET (*Brachyramphus marmoratus marmoratus*)

This murrelet nests along the coast from southeastern Alaska to northwestern California. Its status as a breeding bird in Oregon is based on females taken carrying eggs and young taken or seen which were still unable to fly. Nests have never

been found. Outside of the meager material in Gabrielson and Jewett (1940) and young seen near the mouth of Tillamook Bay by H. B. Nehls (personal communication, 1968) on several different occasions, the last one on August 27, 1967, no information seems to be available on this bird.

5. RHINOCEROS AUKLET (*Cerorhinca monocerata*)

This bird nests from Siberia and Alaska south to Korea and the Farallon Islands, California. It is not known to nest in Oregon, but a bird found digging a burrow and a specimen in breeding plumage found dead at Goat Island, Oregon Islands National Wildlife Refuge (Browning and English, 1968) strongly indicate that breeding occurs.

6. MIGRATORY ALLEN'S HUMMINGBIRD (*Selasphorus sasin*)

This hummingbird breeds from Curry County, Oregon, south along the coast to Ventura County, California. The above distribution statement is based on the A.O.U. Check-List and Gabrielson and Jewett (1940). However, the author has not been able to locate any actual nesting records. The status of this bird as a breeding species in Oregon is apparently based on two specimens taken and two more which were shot but unretrieved during the nesting season. Obviously, additional field work is needed to ascertain the real status of this bird in Oregon.

7. CALIFORNIA YELLOW-BILLED CUCKOO (*Coccyzus americanus occidentalis*)

This cuckoo nests from southwestern British Columbia to western Washington and south to Baja California and Mexico. In Oregon, it may no longer be a breeding species. The only breeding records noted by Gabrielson and Jewett (1940) are from Bendire who tells of a nest along the Snake River in 1876 and Prill who found a nest at Sweet Home in 1891. Gabrielson and Jewett, however, also note the presence of cuckoos probably as late as the 1930's in the Columbia and Willamette river bottoms. There is a sight record in the author's notes by W. H. Telfer for July 27, 1940, near Portland along the Columbia River. Most of this area is now industrialized. The last recorded occurrence of this species in Oregon was at La Grande on November 28, 1943 (Quaintance, 1944).

8. CALIFORNIA SCREECH OWL (*Otus asio bendirei*)

This species is a permanent resident and nester from south-central Oregon south to Monterey Bay and the edges of the Sacramento and San Joaquin

valleys. In Oregon, it is found only in southern Klamath, Jackson, Josephine, and Curry counties. This bird may be rare in the area concerned in Oregon. Other subspecies of this owl are found elsewhere in the state in substantial numbers.

9. FLAMMULATED OWL (*Otus flammeolus*)

The flammulated owl breeds from southern British Columbia and northern Colorado south through mountainous areas to southern California, Texas, and Mexico. In Oregon, it is a very rare resident of the eastern part where it presumably nests, although there are no nesting records.

10. CALIFORNIA PYGMY OWL (*Glaucidium gnoma californicum*)

This owl is found in British Columbia and Alberta south through the Cascade Mountain and Blue Mountain ranges as well as in the Great Basin and Rocky Mountain ranges to Arizona and northern Coahuila, Mexico. In Oregon, it is a permanent resident of the Cascades and the forested parts of Klamath and Lake counties, as well as of the Rogue River Valley. It intermingles with the coast pygmy owl (*G. g. grennelli*) in the Umpqua and Willamette valleys.

11. DUSKY POOR-WILL (*Phalaenoptilus nuttallii californicus*)

The dusky poor-will occurs during nesting season from the Rogue River Valley, Oregon, south to southern California and northwestern Baja California. In Oregon, the first record was a single specimen taken at Brownsboro, Jackson County, on June 21, 1929 (Gabrielson and Jewett, 1940). Since that time, it has been reported by J. H. Hicks at Medford and near Shady Cove on the Rogue River, Jackson County, in July 1961 (Boggs and Boggs, 1961) and by J. Olson near Medford on June 19, 1963 (Boggs and Boggs, 1963). No nests have been found in Oregon. The Nuttall's poor-will (*P. n. nuttallii*) found in eastern Oregon is more widespread in the state.

12. NORTHERN PURPLE MARTIN (*Progne subis subis*)

This bird breeds along the coast from southwestern British Columbia south to the Mexican boundary, east of the Rockies from northeastern British Columbia east to New Brunswick and Nova Scotia south to eastern Idaho, north-central Utah, central Arizona, Texas, the Gulf of Mexico, and southern Florida. In Oregon, it is found west of the Cascades and in Klamath and Lake counties.

This species was not listed in the first draft of this report; however, it appears in this final version at the suggestion of several observers who commented on the scarcity of martins in Oregon the past several years. The bird was never common in Oregon, and several former nesting colonies have been abandoned. No reports were received of any existing colonies, but the late listing of this bird probably prohibited comments from all who might know of some still active nest sites. It has been suggested that the movement of the starling (*Sturnus vulgaris*) into the state has evicted martins from their nesting holes. However, modern timber management practices which include removal of old snags and suppression of fires are likely to be even more responsible. Martins are seen with fair frequency as migrants in Oregon.

13. NEVADA SCRUB JAY (*Aphelocoma coerulescens nevadae*)

This jay is resident from southeastern Oregon (?), southern Idaho, and western Utah south to southeastern California, southeastern Arizona, and northern Mexico. In Oregon, it was reported by Bendire on southern Steens Mountain in 1877 and collected by Gabrielson and Jewett on August 8, 1921, at Wildhorse Creek near Andrews in Harney County (Gabrielson and Jewett, 1940). No actual breeding records are available for the state; however, it is not normally a migratory species and might possibly breed or still occur in the southern part of Steens Mountain. This and the jay described below represent two of the four subspecies or geographical races of scrub jays found in Oregon. They are considered to be separate from the Oregon scrub jay (*A. c. immanis*) found in the valleys between the Coast Range and the Cascades and the interior scrub jay (*A. c. superciliosa*) of south-central Oregon.

14. NICASIO SCRUB JAY (*Aphelocoma coerulescens oocleptica*)

This scrub jay is resident from extreme southwestern Oregon along the coast to Mt. Diablo in California. In Oregon, according to Gabrielson and Jewett (1940), it is an uncommon permanent resident along the coast of Curry County where there are small permanent colonies at Brookings and Pistol River. No recent information has been received.

15. WARNER VALLEY TITMOUSE (*Parus inornatus zaleptus*)

This titmouse is resident from Warner Valley, Oregon, south to central-eastern California and west-central Nevada. In Oregon, it has been reported in the past for Warner Valley in extreme southern Lake County. Specimens were also taken by S. G. Jewett in Blitzen Gorge, Steens Mountain, Harney County, in 1936. There are no recent records in either Warner Valley or Steens Mountain, to the author's knowledge.

16. WARNER VALLEY BEWICK'S WREN (*Thryomanes bewickii atrestus*)

This wren is resident in south-central Oregon, northeastern California, and west-central Nevada. In Oregon, according to Gabrielson and Jewett (1940), it is found in the vicinity of Klamath Falls and also locally common in Warner Valley. No recent information has been found.

17. CALIFORNIA HUTTON'S VIREO (*Vireo huttoni huttoni*)

This bird is distributed along the Pacific Coast from southern British Columbia to lower California. Gabrielson and Jewett (1940) described this bird as a regular, but not common, resident of the western part of the state. They listed only two nesting records. A set of four eggs was collected at Lake Oswego years ago by W. E. Griffie (personal communication, 1968). A recent nest was found by O. and M. Swisher and J. H. Hicks near Medford on July 8, 1965 (Baldrige and Crowell, 1965). This bird should probably be considered rare as field observers record it infrequently at any time of the year.

18. ROCKY MOUNTAIN PINE GROSBEAK (*Pinicola enucleator montana*)

This species breeds from central British Columbia and southwestern Alberta south through the northern Cascades and Rocky Mountains to Utah and Arizona and New Mexico. In Oregon, it may breed in the Wallowa Mountains. There are no actual nesting records, but this species' occasional occurrence in the Wallowas during nesting season indicates that breeding occurs in Oregon.

19. BLACK ROSY FINCH (*Leucosticte atrata*)

The black rosy finch breeds in the high mountains of Montana, central Idaho, western Wyoming, northern Nevada, and northern Utah. It

probably breeds on Steens Mountain. F. Zeillmaker reported two there on June 19, 1966 (Scott, 1966), as did Rev. T. McCamant in 1968 (personal communication, 1968). The author observed rosy finches in summer several times between 1955 and 1960 along the crest of Steens Mountain, but he was not able to positively identify the species. The black rosy finch is the most logical rosy finch species for this area. Additional work, including specimens, is needed to determine the status of the rosy finches on Steens Mountain.

20. WESTERN GRASSHOPPER SPARROW (*Ammodramus savannarum perpallidus*)

This sparrow breeds from northwestern California, eastern Washington, southeastern British Columbia, eastward to western Ontario and south to southwestern California and the southwestern states. It appears on this list solely on the basis of J. H. Hicks' observation from Medford, reported by Boggs and Boggs (1963:480) as follows: "Seen making repeated trips carrying insects, June 26; no nest was found. On August 15, two immature

birds were discovered." This occurrence was also seen by F. Sturges (J. H. Hicks, personal communication, 1968). There are sight records for the state and a specimen taken in Baker County on June 22, 1916 (Gabrielson and Jewett, 1940), but they do not necessarily denote nesting. This is a rather inconspicuous species which could be more common in Oregon than indicated.

21. DESERT BLACK-THROATED SPARROW (*Amphispiza bilineata deserticola*)

This bird breeds from northeastern California, northern Nevada, Utah, and Colorado south into Mexico. In Oregon, there are still no positive nesting records. However, it appears it will only be a matter of time until a nest is found. This bird is appearing with increasing frequency in the desert areas east of Steens Mountain during June in habitat similar to northern Nevada. Brown (1960) observed this species with K. L. McLeod in late May and early June, 1959, north of Klamath Falls. This observation included what appeared to be the gathering of nesting material.

LITERATURE CITED

- American Ornithologists' Union. 1957. *The A.O.U. Check-List of North American Birds*. American Ornithologists' Union.
- Baldrige, A., and J. B. Crowell. 1965. Audubon Field Notes, 19(5):571, 573.
- Boggs, B., and E. Boggs
1961. Audubon Field Notes, 15(5):488.
1962. Audubon Field Notes, 16(5):501.
1963. Audubon Field Notes, 17(5):478-480.
1964. Audubon Field Notes, 18(5):531-532.
- Brown, R. M. 1960. Black-throated sparrows in south-central Oregon. Condor, 62(3):220-221.
- Browning, M. R., and W. English. 1968. A breeding colony of Cassin's auklet and possible breeding of the rhinoceros auklet on Goat Island, southwestern Oregon. Condor, 70(1):88.
- Bureau of Sport Fisheries and Wildlife. Committee on Rare and Endangered Species. 1968. Rare and endangered wildlife of the United States. Bureau of Sport Fisheries and Wildlife Resource Publication 34.
- Crowell, J. B., and H. B. Nehls.
1966. Audubon Field Notes, 20(5):592, 594.
1967. Audubon Field Notes, 21(5):599.
1968. Audubon Field Notes, 22(5):641, 642.
- Evenden, F. G. Jr. 1947. The bufflehead nesting in Oregon. Condor, 49(4):169.
- Farner, D. S. 1952. *The Birds of Crater Lake National Park*. University of Kansas Press, Lawrence.
- Gabrielson, I. N., and S. G. Jewett. 1940. *Birds of Oregon*. Oregon State College, Corvallis.
- Griffie, W. E.
1944. First Oregon nest of yellow rail. Murrelet, 25(2):29.
1960. Bohemian waxwing nesting in Oregon. Murrelet, 41(3):44.
- Grinnell, J., and A. H. Miller, 1944. *The Distribution of the Birds of California. Pacific Coast Avifauna*. Cooper Ornithologists' Club, Berkeley.
- Jewett, S. G. 1949. The Franklin's gull in Oregon. Condor, 51(4):189-190.
- Jewett, S. G., W. P. Taylor, W. T. Shaw, and J. W. Aldrich. 1953. *Birds of Washington State*. University of Washington Press, Seattle.
- Kebbe, C. E. 1958. Nesting records of the red-necked grebe in Oregon. Murrelet, 39(1):14.
- Kridler, E., and D. B. Marshall. 1962. Additional bird records from southeastern Oregon. Condor, 64(2):162-164.
- Littlefield, C. D. 1968. Breeding biology of the greater sandhill crane on Malheur National Wildlife Refuge. M. S. thesis. Colorado State University, Fort Collins, Colorado.
- Marshall, D. B. 1959. New bird records from southeastern Oregon. Condor, 61(1):53-56.
- Marshall, D. B., and H. F. Duebbert. 1965. Nesting of the ring-necked duck in Oregon in 1963 and 1964. Murrelet, 46(3):43.

- Quaintance, C. W. 1944. California cuckoo collected in eastern Oregon. *Condor*, 46(2):89-90.
- Richardson, C. 1961. Tricolored blackbirds nesting in Jackson County, Oregon. *Condor*, 63(6):507-508.
- Rogers, T. H.
 1958. *Audubon Field Notes*, 12(5):429-430.
 1959. *Audubon Field Notes*, 13(5):444.
 1964. *Audubon Field Notes*, 18(5):524.
 1965. *Audubon Field Notes*, 19(5):566.
 1966. *Audubon Field Notes*, 20(5):586.
 1967. *Audubon Field Notes*, 21(5):588.
 1968. *Audubon Field Notes*, 22(5):630.
- Scott, O. K. 1966. *Audubon Field Notes*, 20(5):589.
- Sooter, C. A. 1943. Catbirds nesting on the Malheur Refuge in southeastern Oregon. *Condor*, 45(6):234.
- White, C. M. 1968. Diagnosis and relationships of the North American tundra-inhabiting peregrine falcons. *Auk*, 85(2): 179-191.

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